UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 7,038,020 B1
APPLICATION NO. : 09/147443
DATED : May 2, 2006
INVENTOR(S) : Andreas Morell et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IN THE SPECIFICATION:

Col. 3, line 48, please insert --as follows-- after "disclosed"

Col. 3, after line 48, please insert the following paragraphs

--FIG. 1a is an LD1-40-VH sequence (SEQ ID NOS 1-2);--

--FIG. 1b is an LD1-40-VL sequence (SEQ ID NOS 3-4);--

--FIG. 2a is an LD1-52-VH sequence (SEQ ID NOS 5-6);--

--FIG. 2b is an LD1-52-VL sequence (SEQ ID NOS 7-8);--

--FIG. 3a is an LD1-84-VH sequence (SEQ ID NOS 9-10);--

--FIG. 3b is an LD1-84-VL sequence (SEQ ID NOS 11-12);--

--FIG. 4a is an LD1-110-VH sequence (SEQ ID NOS 13-14);--

--FIG. 4b is an LD1-110-VL sequence (SEQ ID NOS 15-16);--

--FIG. 5a is an LD1-117-VH sequence (SEQ ID NOS 17-18);--

--FIG. 5b is an LD1-117-VL sequence (SEQ ID NOS 19-20);--

--FIG. 6a is an LD2-1-VH sequence (SEQ ID NOS 21-22);--

--FIG. 6b is an LD2-1-VL sequence (SEQ ID NOS 23-24);--

--FIG. 7a is an LD2-4-VH sequence (SEQ ID NOS 25-26);--

--FIG. 7b is an LD2-4-VL sequence (SEQ ID NOS 27-28);--

--FIG. 8a is an LD2-5-VH sequence (SEQ ID NOS 29-30);--

--FIG. 8b is an LD2-5-VL sequence (SEQ ID NOS 31-32);--

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

--FIG. 9a is an LD2-10-VH sequence (SEQ ID NOS 33-34);--

--FIG. 9b is an LD2-10-VL sequence (SEQ ID NOS 35-36);--

--FIG. 10a is an LD2-11-VH sequence (SEQ ID NOS 37-38);--

--FIG. 10b is an LD2-11-VL sequence (SEQ ID NOS 39-40);--

--FIG. 11a is an LD2-14-VH sequence (SEQ ID NOS 41-42);--

--FIG. 11b is an LD2-14-VL sequence (SEQ ID NOS 43-44);--

--FIG. 12a is an LD2-17-VH sequence (SEQ ID NOS 45-46);--

--FIG. 12b is an LD2-17-VL sequence (SEQ ID NOS 47-48);--

--FIG. 13a is an LD2-20-VH sequence (SEQ ID NOS 49-50);--

--FIG. 13b is an LD2-20-VL sequence (SEQ ID NOS 51-52);--

--FIG. 14a is an LD1-6-17-VH sequence (SEQ ID NOS 53-54);--

--FIG. 14b is an LD1-6-17-VL sequence (SEQ ID NOS 55-56);--

--FIG. 15a is an LD1/2-6-3-VH sequence (SEQ ID NOS 57-58);--

--FIG. 15b is an LD1/2-6-3-VL sequence (SEQ ID NOS 59-60);--

--FIG. 16a is an LD1/2-6-33-VH sequence (SEQ ID NOS 61-62); and --

--FIG. 16b is an LD1/2-6-33-VL sequence (SEQ ID NOS 63-64).--

Col. 3, line 49, delete "the" and insert --a--

Col. 3, lines 49-50, delete "used according to the present invention"

Col. 3, line 56, insert --following-- after "the", insert --:-- after "definition" and delete "of claim 1"

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CERTIFICATE OF CORRECTION

PATENT NO. : 7,038,020 B1 Page 3 of 8
APPLICATION NO. : 09/147443
DATED : May 2, 2006
INVENTOR(S) : Andreas Morell et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 3, after line 56, insert the following paragraph:

--Polypeptides capable of forming antigen binding structures with specificity for Rhesus D antigens which include Rhesus D-specific CDR 1, CDR 2 and CDR 3 regions of pairs of amino acid sequences V_H and V_L with the same or different identification numbers according to the figures given in the table below:

	V_H				V_L			
Identification No.	Figure	CDR 1 base pair No.	CDR 2 base pair No.	CDR 3 base pair No.	Figure	CDR 1 base pair No.	CDR 2 base pair No.	CDR 3 base pair No.
LD1-40	Fig. 1a	91-105	148-198	295-342	Fig. 1b	64-96	142-162	259-288
LD1-52	Fig. 2a	91-105	148-198	295-342	Fig. 2b	64-96	142-162	259-288
LD1-84	Fig. 3a	91-105	148-198	295-342	Fig. 3b	64-96	142-162	259-285
LD1-110	Fig. 4a	91-105	148-198	295-342	Fig. 4b	64-96	142-162	259-285
LD1-117	Fig. 5a	91-105	148-198	295-345	Fig. 5b	64-96	142-162	259-288
LD2-1	Fig. 6a	91-105	148-198	295-342	Fig. 6b	61-99	145-165	262-294
LD2-4	Fig. 7a	91-105	148-198	295-342	Fig. 7b	64-96	142-162	259-282
LD2-5	Fig. 8a	91-105	148-198	295-342	Fig. 8b	64-96	142-162	259-288
LD2-10	Fig. 9a	91-105	148-198	298-345	Fig. 9b	61-102	148-168	285-294
LD2-11	Fig. 10a	91-105	148-198	295-342	Fig. 10b	64-96	142-162	259-285
LD2-14	Fig. 11a	91-105	148-198	295-342	Fig. 11b	64-96	142-162	259-285
LD2-17	Fig. 12a	91-105	148-198	295-342	Fig. 12b	64-96	142-162	259-285
LD2-20	Fig. 13a	91-105	148-198	295-342	Fig. 13b	64-96	142-162	259-285
LD1-6-17	Fig. 14a	91-105	148-198	295-351	Fig. 14b	64-96	142-162	259-285
LD1/2-6-3	Fig. 15a	91-105	148-198	295-342	Fig. 15b	64-96	142-162	259-285
LD1/2-6-33	Fig. 16a	91-105	148-198	295-342	Fig. 16b	64-96	142-162	259-285

--

Col. 3, line 57, delete "The table in claim 1 refers to the appended figures."

Col. 3, line 62, insert --above-- after "table" and delete "of claim 1"

Col. 4, line 6, insert --following-- after "the", insert --;-- after "definition" and delete "of claim 6."

Col. 4, line 6, delete "Prefered" and insert --Preferred--

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PATENT NO. : 7,038,020 B1
APPLICATION NO. : 09/147443
DATED : May 2, 2006
INVENTOR(S) : Andreas Morell et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 4, line 6, before "Preferred" insert --DNA sequences coding for polypeptides capable of forming antigen binding structures with specificity for Rhesus D antigens which include regions with the Rhesus D-specific CDR 1, CDR 2 and CDR 3 segments of pairs of DNA sequences V_H and V_L with the same or different identification numbers according to the figures given in the table below and functional equivalents thereof:

	V_H				V_L			
Identification No.	Figure	CDR 1 base pair No.	CDR 2 base pair No.	CDR 3 base pair No.	Figure	CDR 1 base pair No.	CDR 2 base pair No.	CDR 3 base pair No.
LD1-40	Fig. 1a	91-105	148-198	295-342	Fig. 1b	64-96	142-162	259-288
LD1-52	Fig. 2a	91-105	148-198	295-342	Fig. 2b	64-96	142-162	259-288
LD1-84	Fig. 3a	91-105	148-198	295-342	Fig. 3b	64-96	142-162	259-285
LD1-110	Fig. 4a	91-105	148-198	295-342	Fig. 4b	64-96	142-162	259-285
LD1-117	Fig. 5a	91-105	148-198	295-345	Fig. 5b	64-96	142-162	259-288
LD2-1	Fig. 6a	91-105	148-198	295-342	Fig. 6b	61-99	145-165	262-294
LD2-4	Fig. 7a	91-105	148-198	295-342	Fig. 7b	64-96	142-162	259-282
LD2-5	Fig. 8a	91-105	148-198	295-342	Fig. 8b	64-96	142-162	259-288
LD2-10	Fig. 9a	91-105	148-198	298-345	Fig. 9b	61-102	148-168	265-294
LD2-11	Fig. 10a	91-105	148-198	295-342	Fig. 10b	64-96	142-162	259-285
LD2-14	Fig. 11a	91-105	148-198	295-342	Fig. 11b	64-96	142-162	259-285
LD2-17	Fig. 12a	91-105	148-198	295-342	Fig. 12b	64-96	142-162	259-285
LD2-20	Fig. 13a	91-105	148-198	295-342	Fig. 13b	64-96	142-162	259-285
LD1-6-17	Fig. 14a	91-105	148-198	295-351	Fig. 14b	64-96	142-162	259-285
LD1/2-6-3	Fig. 15a	91-105	148-198	295-342	Fig. 15b	64-96	142-162	259-285
LD1/2-6-33	Fig. 16a	91-105	148-198	295-342	Fig. 16b	64-96	142-162	259-285

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Col. 4, line 13, insert --following-- before "definition, insert --:-- after "definition" and delete "in the claim 11"

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 4, after line 13, insert the following paragraph:

--A process for preparing recombinant polypeptides capable of forming antigen binding structures, e.g. Fab fragments, with specificity for Rhesus D antigens, which process comprises the following steps in sequential order:

a) boosting an individual capable for forming anti-Rhesus D antibodies with Rhesus D positive red blood cells,

b) isolating mononuclear cells from the individual,

c) isolating total RNA from the mononuclear cells,

d) preparing a cDNA by using an oligo(dT)primer, reverse transcribing the mRNA with M-MuLV reverse transcriptase, and amplifying the cDNA repertoire by a polymerase chain reaction using immunoglobulin gene family specific primers,

e) creating a phage display library by inserting the DNA coding for the heavy and light chain of the Fab polypeptide into a phagemid vector, wherein the DNA for the heavy chain is inserted in frame to the gene coding for the phage protein pIII which allows the expression of a Fab pIII fusion protein on the surface of the phage,

f) transforming bacterial cells with the obtained recombinant plasmids, cultivating the transformed bacterial cells, and co-expressing the heavy and the light chains of a Fab on filamentous phage particles,

g) amplifying the Fab-carrying phage in bacteria,

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

h) selecting individual phage clones by several rounds of panning on Rhesus positive red blood cells,

i) isolating the plasmid DNA from the selected clones and cutting out the gIII gene,

j) transforming bacterial cells with the obtained plasmid, cultivating the transformed bacterial cells expressing the Fab, and isolating the Fab fragments.--

Col. 4, line 16, delete "claim 12" and insert --the following:--

Col. 4 after line 16 insert the following:

--A process for selecting recombinant polypeptides capable of forming antigen binding structures with specificity for Rhesus D antigens, and in particular showing reactivity with the partial Rhesus DVI Variant and without any evidence of reactivity with red blood cells of Rhesus negative phenotypes, in particular without reactivity against the Rhesus alleles C, c, E, and e, which process comprises the following steps in sequential order:

a) performing several negative absorptions on the following red blood cells: phenotype 1 (r'r, Ccddee) treated with bromelase, phenotype 1 not treated with bromelase, phenotype 2 (ryry, CCddEE) treated with bromelase and phenotype 2 not treated with bromelase,

b) performing a positive absorption on DVI+ red blood cells with or without bromelase treatment,

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c) determining the titer of phage binding to DVI+ red blood cells,

d) repeating steps a), b) and c) until the titer of phage binding to DVI+ red blood cells has reached a satisfactory level.--

Col. 4, line 18, insert --following-- after "the", insert --:-- after "definition" and delete "of claim 14,"

Col. 4, line 18, before "preferably" insert the following:

--Anti-Rhesus D antibodies having heavy and light chain variable regions comprising the Rhesus D-specific CDR 1, CDR 2 and CDR 3 sequences of pairs of amino acid sequences V_H and V_L having the same or different identification numbers according to the table below:

	V_H				V_L			
Identification No.	Figure	CDR 1 base pair No.	CDR 2 base pair No.	CDR 3 base pair No.	Figure	CDR 1 base pair No.	CDR 2 base pair No.	CDR 3 base pair No.
LD1-40	Fig. 1a	91-105	148-198	295-342	Fig. 1b	64-96	142-162	259-288
LD1-52	Fig. 2a	91-105	148-198	295-342	Fig. 2b	64-96	142-162	259-288
LD1-84	Fig. 3a	91-105	148-198	295-342	Fig. 3b	64-96	142-162	259-285
LD1-110	Fig. 4a	91-105	148-198	295-342	Fig. 4b	64-96	142-162	259-285
LD1-117	Fig. 5a	91-105	148-198	295-345	Fig. 5b	64-96	142-162	259-288
LD2-1	Fig. 6a	91-105	148-198	295-342	Fig. 6b	61-99	145-165	262-294
LD2-4	Fig. 7a	91-105	148-198	295-342	Fig. 7b	64-96	142-162	259-282
LD2-5	Fig. 8a	91-105	148-198	295-342	Fig. 8b	64-96	142-162	259-288
LD2-10	Fig. 9a	91-105	148-198	298-345	Fig. 9b	61-102	148-168	265-294
LD2-11	Fig. 10a	91-105	148-198	295-342	Fig. 10b	64-96	142-162	259-285
LD2-14	Fig. 11a	91-105	148-198	295-342	Fig. 11b	64-96	142-162	259-285
LD2-17	Fig. 12a	91-105	148-198	295-342	Fig. 12b	64-96	142-162	259-285
LD2-20	Fig. 13a	91-105	148-198	295-342	Fig. 13b	64-96	142-162	259-285
LD1-8-17	Fig. 14a	91-105	148-198	295-351	Fig. 14b	64-96	142-162	259-285
LD1/2-8-3	Fig. 15a	91-105	148-198	295-342	Fig. 15b	64-96	142-162	259-285
LD1/2-8-33	Fig. 16a	91-105	148-198	295-342	Fig. 16b	64-96	142-162	259-285

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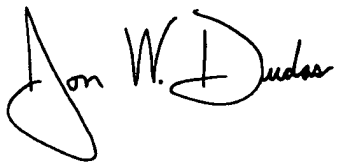
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 4, line 18, delete "preferably" and insert --. Preferably the antibodies are--

Col. 16, line 3, insert --18-- after "Figure" and delete "and"

Signed and Sealed this

Twenty-ninth Day of January, 2008



JON W. DUDAS
Director of the United States Patent and Trademark Office